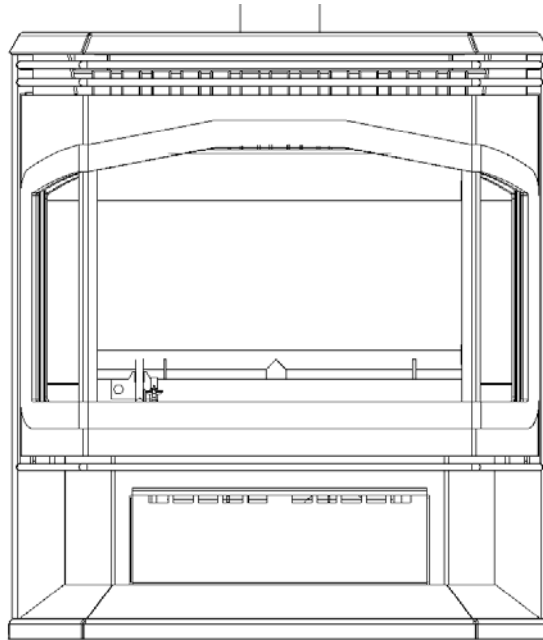


Installation & Operating Manual

The Harman Clarity 929BV Gas Stove



We suggest that our hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute (NFI) as NFI Specialists.

“Ce manuel est disponible en Français sur demande”



R5

SAFETY NOTICE

PLEASE READ THIS ENTIRE MANUAL BEFORE YOU INSTALL AND USE YOUR NEW ROOM HEATER. FAILURE TO FOLLOW INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, BODILY INJURY, OR EVEN DEATH.

IF THIS HARMAN STOVE IS NOT PROPERLY INSTALLED, A HOUSE FIRE MAY RESULT. FOR YOUR SAFETY, FOLLOW INSTALLATION DIRECTIONS.

CONTACT LOCAL BUILDING OR FIRE OFFICIALS ABOUT RESTRICTIONS AND INSTALLATION INSPECTION REQUIREMENTS IN YOUR AREA.

CONTACT YOUR LOCAL AUTHORITY (SUCH AS MUNICIPAL BUILDING DEPARTMENT, FIRE DEPARTMENT, FIRE PREVENTION BUREAU, ETC.) TO DETERMINE THE NEED FOR A PERMIT.

CETTE GUIDE D'UTILISATION EST DISPONIBLE EN FRANCAIS. CHEZ VOTRE CONCESSIONNAIRE DE HARMAN STOVE COMPANY.

WHAT TO DO IF YOU SMELL GAS

- DO NOT TRY TO LIGHT ANY APPLIANCE.
- DO NOT TOUCH ANY ELECTRICAL SWITCH; DO NOT USE ANY PHONE IN YOUR BUILDING.
- IMMEDIATELY CALL YOUR GAS SUPPLIER FROM A NEIGHBOR'S PHONE. FOLLOW THE GAS SUPPLIER'S INSTRUCTIONS.
- IF YOU CANNOT REACH YOUR GAS SUPPLIER, CALL THE FIRE DEPARTMENT.

SAVE THESE INSTRUCTIONS.

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Manufactured by:
Harman Stove Co.
352 Mountain House Road
Halifax, PA 17032



Tested by
Intertek Testing/Warnock Hersey
8431 Murphy Drive
Middleton, WI 53562



Introduction

The Harman Clarity 929BV Vented Gas Heater is a listed gas-fired vented room heater tested by Intertek Testing/Warnock Hersey to ANSI standard Z21.88-2002, CSA 2.33-M02, and CAN/CGA-2.17-M91.

The installation of the Clarity Vented Gas Heater must conform with local codes, or in the absence of local codes, with the current edition of National Fuel Gas Code, ANSI Z223.1 — latest edition and CAN 1-B1-149.1 and .2 Installation Code.

The Clarity 929BV is not for use in mobile homes.

CAUTION: This appliance must be vented to the outside.

Installation and repair of the Clarity Vented Gas Heater should be done by a qualified service person. The appliance should be inspected before use and at least annually by a qualified service person. More frequent cleaning may be required due to excessive lint from carpeting, bedding material, etc. It is imperative that control compartments, burners, and circulating air passageways of the Clarity be kept clean.

When operating your Harman Clarity Gas Heater, respect basic safety standards. Read these instructions carefully before you attempt to operate the heater. Failure to do so may result in damage to property or personal injury and may void the product warranty.

Consult with your local building code agency and insurance representative before you begin your installation to ensure compliance with local codes, including the need for permits and follow-up inspections.

Several issues must be addressed when selecting a suitable location for your Clarity Gas Heater. Observing required clearances to combustible materials, the proximity to a safe chimney or venting system, and the accessibility of the gas and electrical supply must all be considered. In addition, selecting a location that takes advantage of the building's natural air flow is also desirable to maximize the heating effectiveness of the heater. In many cases, this is a central location within the building.

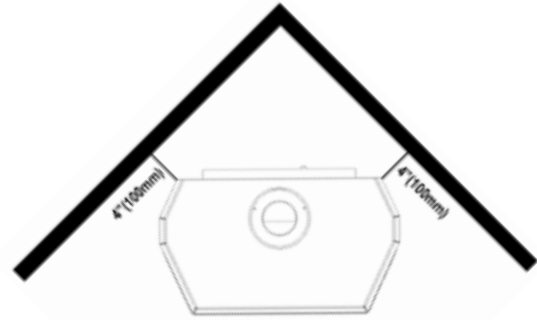
Adequate combustion and ventilation air must be provided.

Due to high temperatures, the Clarity Vented Gas Heater should be located out of traffic and away from furniture and draperies.

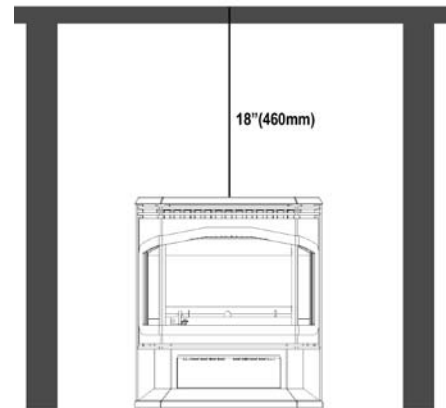
Children and adults should be alerted to the hazards of high surface temperatures and should stay away to avoid burns or clothing ignition.

Young children should be carefully supervised when they are in the same room as the Clarity Vented Gas Heater.

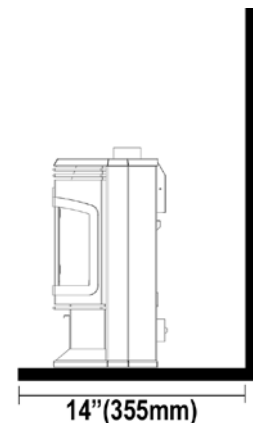
Clothing or other flammable materials should not be placed on or near the Clarity Vented Gas Heater.



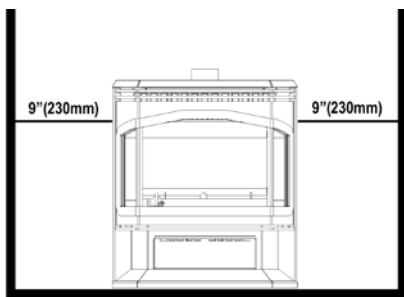
Clearance from corner of unit to walls



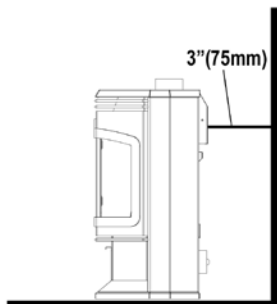
Clearance to alcove ceiling



Maximum alcove depth



Sidewall Clearance



Clearance to Back wall

INSTALLATION

CLEARANCES

The following clearances to combustibles must be observed:

Unit to left sidewall	9" (230 mm)
Unit to right sidewall	9" (230 mm)
Unit corner to walls	4" (100 mm)
Rear of unit to back wall (measured from rear of draft hood to wall)	3" (75 mm)
Unit to alcove ceiling	18" (460 mm)
Maximum alcove depth	14" (355 mm)

In addition to these clearances, adequate accessibility clearance for servicing and proper operation must be maintained.

Do not in any way obstruct the combustion air inlets that are located under the heater.

If this appliance is installed directly on carpeting, tile or other combustible material other than wood flooring the appliance shall be installed on a metal or wood panel extending at least the full width and depth of the appliance.

VENTING

Use Only Approved Venting

The Clarity gas heater is tested and listed for connection to a 4" (100 mm) listed Class B venting system.

If the unit is installed to vent through an approved masonry chimney or a factory-built chimney system, an approved Class B chimney liner must be used.

Observe local codes when venting the Clarity. If no local codes exist, follow the current edition of ANSI Z223.1 and CAN1- B149 installation codes.

Do not connect the venting to the flue of a chimney that serves a separate solid-fuel burning appliance.

The venting manufacturer's installation instructions must be followed exactly.

IMPORTANT: Because of the high efficiency and low flue gas temperatures of this appliance, it is important that it be connected to a well-sealed and efficient venting system which is capable of registering a negative pressure while the stove is in operation.

The most efficient venting systems are those that have a minimum number of bends and minimal horizontal runs.

The Clarity gas heater is equipped with a thermally activated vent safety switch that will shut down the main burner if the heater is not properly venting. The safety switch will automatically reset after the heater has cooled down.

The switch will continue to cycle off and on until the venting problem is corrected. If you are unable to correct the venting problem, seek expert advice from your Harman dealer or installer.

DO NOT DISCONNECT OR BYPASS THE VENT SAFETY SWITCH.

WARNING: Operation of this heater when not connected to a properly installed and maintained venting system or tampering with the vent safety shutoff system can result in carbon monoxide (CO) poisoning and possible death.

The Clarity gas heater is equipped with its own internal draft hood so no additional external draft hood is required. The heater should be installed so that the draft hood is in the same atmospheric pressure zone as the air inlets to the heater.

TEST FOR FLUE SPILLAGE

A spillage test should always be made at the completion of the installation.

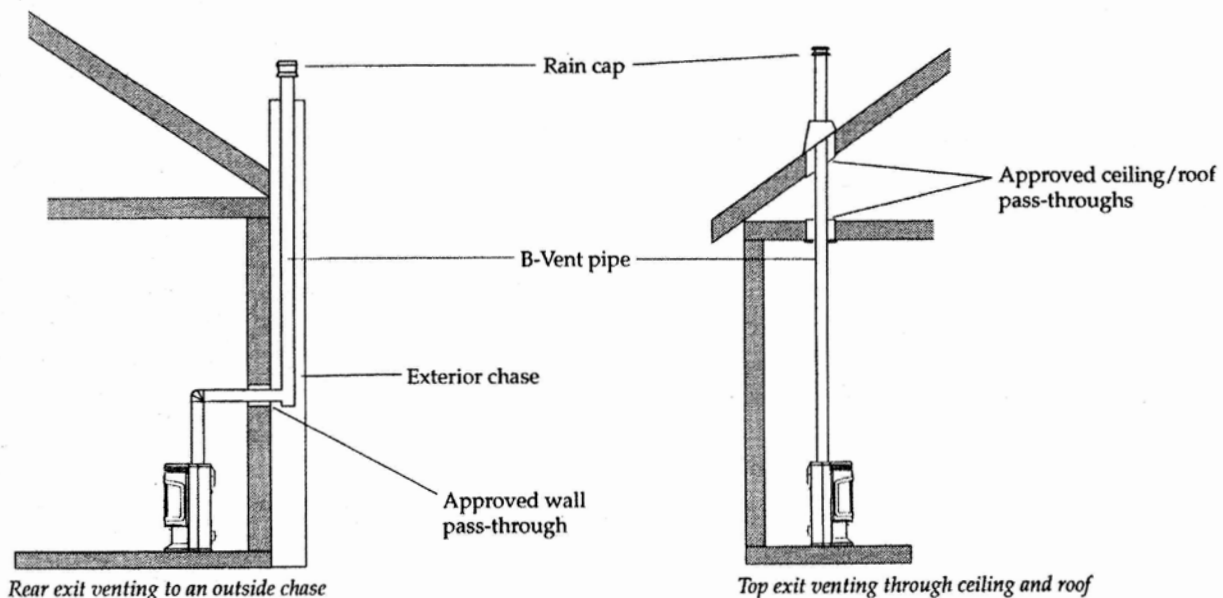
1. Start all exhaust fans in the home and then close all doors and windows in the room containing the heater.

2. Light the heater and allow it to run for 5 minutes on the high output setting. If the convection air blower is installed, it should be turned off for the test.

3. Hold a match or other source of smoke near the draft hood outlet on the upper back of the stove.

4. If the smoke is not drawn in, turn off the heater and determine the cause of the lack of draft. If necessary, seek expert advice.

For sites with swirling or turbulent wind conditions, a wind cap may solve the problem.



ASSEMBLY

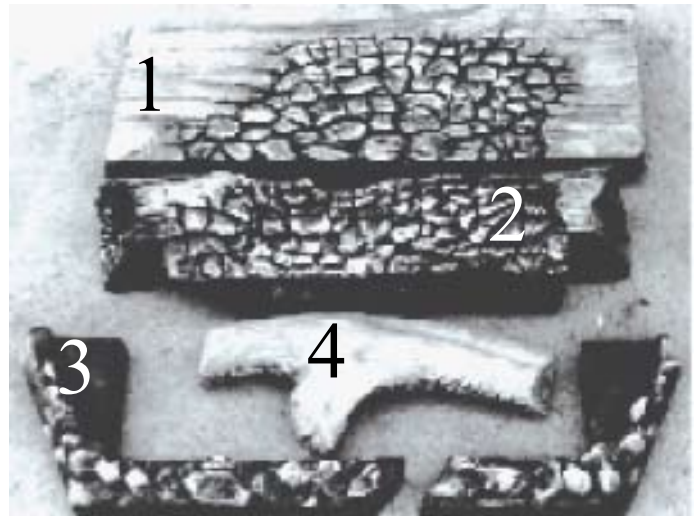
The Clarity is shipped from the factory with the log set packed inside the firebox. To prepare the stove for installation, the log set must be unpacked, the appropriate burner system module for either natural gas or propane installed, and the logs installed.

Removing the Glass Front

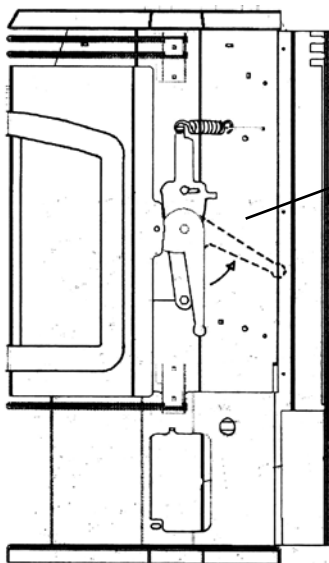
NOTE: The glass front is heavy. Be prepared for its weight when lifting it to avoid damage during removal.

The wing doors on each side are held closed by magnets. Push on each door to open it. Loosen the wing nut on each of the two levers. Grasp each lever and push to the rear to disengage the front. To keep the levers in the disengaged position, tighten the wing nuts. Lift the glass front slightly and remove it from the stove. Set the glass aside in a safe place where it will not be damaged.

WARNING: Do not abuse the Clarity's glass by striking, slamming, or similar trauma. Do not operate the Clarity Vented Gas Heater with the glass panel removed,



The log set components are shipped from the factory individually wrapped and packed inside the stove. Take them out of the stove, then carefully remove the wrapping. Handle the logs gently as they may be damaged easily.



The front is released when levers on the left and right sides are pushed to the rear

cracked or broken. Use only glass supplied by Harman and approved for use with this heater. Do not use substitute materials. Replacement of the panel should be done by a licensed or qualified service person.

Remove and Unwrap the Log Set

As shown in the photo above right, the log set consists of a back log (1), a center log that has a pilot-viewing port in the left end (2), ember strip (3), and a branch that rests on top (4).

In addition, there are two side brick panels and a back brick panel.

Install the Back Log and Back Brick Panel

These two components are installed as a single piece. Rest the back brick panel on the shelf located on the back side of the back log, and center it. Holding the two pieces as a single unit, tilt the top forward slightly and maneuver it over the top of the rear burner—taking care that the top corners clear the front opening. Place it snugly against the back wall and center it.

Install the Side Brick Panels

These slide into place along each side and are held by friction. The notch in each panel faces the back. Install one side, and then the other.

Install the Ember Strips

The ember strips rest against the front of the firebox and should fit snugly. Guide them toward you and to the outside until they fit snugly. Check the air slot in the inside of the ember strips to confirm that they do not obstruct it.

Install the Center Log

The center log goes all the way to the back and should be centered. When properly positioned, there should be an even gap along the front of the center burner in the cavity in the log. A small portion of the log support frame will be revealed.

The center log has a round viewing port in the left end through which the pilot can be observed.

Install the Branch

Orient the branch with the forked end toward the left rear of the stove and slip it over the two locator pins, one on top of the back log and the other on the top of the center log.

Secure the Glass Front

NOTE: The glass front is heavy. Lift it carefully to prevent damage. Center the glass on the opening and suspend it in place by placing the tab hooks over the top edge of the opening. Loosen the wing nuts that hold the spring-loaded levers in place. Press the glass slightly against the stove to confirm that it seats properly, then press it firmly against the front while pulling the levers forward to engage them. Tighten the wing nuts.

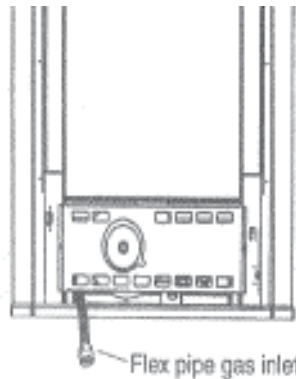
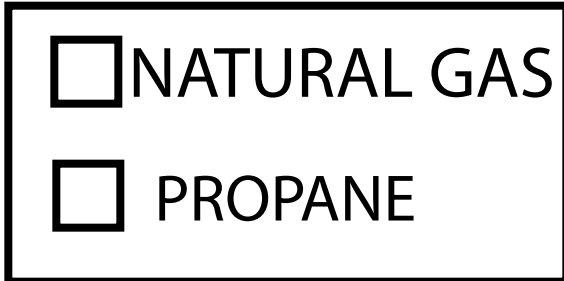


The complete log set, with the logs installed and positioned correctly.

CONNECTING THE HEATER TO A GAS SUPPLY

Burn Only the Fuel for which the Heater is Equipped

The Clarity B-Vent will burn either natural gas or propane, but requires a dedicated burner system module for either fuel. The label on the burner system module indicates the fuel for which it is equipped. A second label, located near the rating plate, also indicates the fuel type.



Making The Connection

The gas inlet is located at the bottom right rear of the stove. The inlet fitting is a 1/2" female flare flexible pipe.

A separate gas shut-off valve and a 1/8" N.P.T. plugged tapping should be installed immediately upstream of the connection to the appliance.

The Clarity B-Vent Gas Heater must be disconnected from the gas supply piping during any pressure testing of that system at pressures in excess of 1/2 psig (3.5 kPa).

The Clarity gas control valve must be in the OFF position during any pressure testing of the gas supply system at pressures equal to or less than 1/2 psig (3.5 kPa).

WARNING: To avoid pipe compounds from entering into the gas train, apply compounds only to the male pipe threads and only to the first two threads.

CAUTION: TEST ALL JOINTS FOR LEAKS BEFORE OPERATING

Gas Pressure Requirements

Correct gas pressure and the use of a properly sized gas supply line are essential for the safe and efficient performance of this appliance. Make sure that the plumber or gas supplier checks the gas supply line and gas pressure at installation.

NOTE: Improper gas pressure can affect heater performance, flame color, or cause pilot outage.

Natural Gas:

Maximum inlet pressure 7.0" w.c. (1.74 kPa)

Minimum inlet pressure 5.0" w.c. (1.25 kPa)

Gas manifold pressure 3.5" w.c. (0.87 kPa)

LPG Gas:

Maximum inlet pressure 13" w.c. (3.24 kPa)

Minimum inlet pressure 11" w.c. (2.74 kPa)

Gas manifold pressure 10" w.c. (2.49 kPa)

DO NOT USE THIS HEATER IF ANY PART HAS BEEN UNDER WATER OR EXPOSED TO MOISTURE CORROSION. IMMEDIATELY CALL A QUALIFIED SERVICE TECHNICIAN TO INSPECT THE HEATER AND REPLACE ANY PART OF THE CONTROL SYSTEM AND ANY GAS CONTROL WHICH HAS BEEN UNDER WATER.

RECOMMENDED GAS PIPE DIAMETER

Pipe Length (Feet)	Schedule 40 Pipe Inside Diameter		Tubing, Type L Outside Diameter	
	N.G.	L.P.	N.G.	L.P.
0-10	1/2" 1.3 cm	3/8" 1.0 cm	1/2" 1.3 cm	3/8" 1.0 cm
10-40	1/2" 1.3 cm	1/2" 1.3 cm	5/8" 1.6 cm	1/2" 1.3 cm
40-100	1/2" 1.3 cm	1/2" 1.3 cm	3/4" 1.6 cm	1/2" 1.3 cm
100-150	3/4" 2.0 cm	1/2" 1.3 cm	7/8" 2.3 cm	3/4" 2.0 cm

NOTE: NEVER USE PLASTIC PIPE. CHECK TO CONFIRM WHETHER YOUR LOCAL CODES ALLOW COPPER TUBING OR GALVANIZED PIPE.

Whether or not you have installed a conversion kit, fill out the installer fuel label, on the stove, or the one that was included with the conversion kit, and affix it to the stove in the appropriate location.

HARMAN CLARITY DIRECT VENT & B VENT			
This Appliance is equipped for <u>NATURAL GAS</u> fuel.			
Cet appareil a été converti au <u>GAZ NATUREL</u> .			
Injectors/Injecteur:	Front	Center	Rear
	DMS 47	DMS 56	DMS 39
Input/Debit calorifique:	40,000		
Manifold Pressure / Pression a la tubulure d'alimentation:	3.5		
Inlet Pressure / Pression D'arrivée:	Min.	5.0	
	Max.	7.0	
Date module installed:	_____		
By:	_____		

HARMAN CLARITY DIRECT VENT & B VENT			
This Appliance is equipped for <u>PROPANE</u> fuel.			
Cet appareil a été converti au <u>PROPANE</u> .			
Injectors/Injecteur:	Front	Center	Rear
	DMS 56	DMS 71	DMS 53
Input/Debit calorifique:	40,000		
Manifold Pressure / Pression a la tubulure d'alimentation:	10.0		
Inlet Pressure / Pression D'arrivée:	Min.	11.0	
	Max.	13.0	
Date module installed:	_____		
By:	_____		

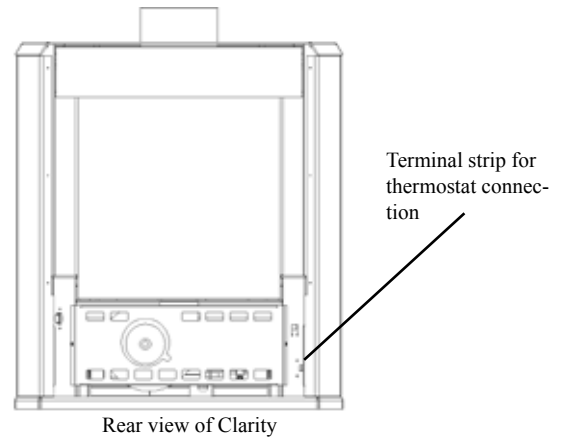
CONNECTING THE CORDSET

The Clarity B-Vent Gas Heater must be installed in accordance with local codes or, in the absence of local codes, with the most recent edition of the National Electrical Code ANSI/NFPA 70, or the current Canadian Electrical Code C22.1.

NOTE: The convection fan requires a 120 VAC supply for operation, but the heater can be operated without the fan as in the case of a power outage.

Plug the 3-prong grounded electrical cord plug into the wall.

WARNING: THIS HEATER IS EQUIPPED WITH A THREE-PRONGED GROUNDING PLUG THAT SHOULD BE PLUGGED DIRECTLY INTO A PROPERLY GROUNDED RECEPTACLE. DO NOT CUT OR REMOVE THE GROUNDING PRONG FROM THE PLUG.



CONNECTING THE OPTIONAL THERMOSTAT

If connecting the optional thermostat, it must be plugged into the terminal strip located on the left side near the bottom of the stove.

When installing a millivolt control system, use only a special low resistance thermostat. Do not use a regular heating thermostat.

Be sure that all electrical connections are clean, free from corrosion, and tight. Inspect connections periodically to confirm that no corrosion has built up over time.

When properly installed and maintained, a millivolt control system should give many years of trouble-free service.

It is important to use wire of a gauge proper for the length of the wire:

RECOMMENDED WIRE GAUGES

<i>Maximum Length</i>	<i>Wire Gauge</i>
100'	14
60'	16
40'	18
25'	20
15'	22

AIR SHUTTER ADJUSTMENT

The final step of the installation is to check the flame pattern, which should resemble the pattern illustrated in the right column: The flames should be relatively well-defined and stable. They should be bright yellow with a blue base where attached to the burner ports, and should not look orange or sooty.

Start the heater according to the directions on page 11 and allow the heater to burn for approximately 15 minutes. The flames will increase in length and become more yellow in color as the Clarity heats up.

If the flames do not resemble the description above and the illustration in the right column, the air shutters may be adjusted.

Three separate screws—one for each burner—are used to adjust the flames for a particular installation. Two of them are accessible through the side access port on the right side of the stove. The third is accessible from the front when the control door is open. The screws may become hot to the touch after prolonged operation. Use a 3/16" Allen wrench to avoid contact if hot. For best results when fine-tuning the flame picture, initially leave the middle screw unchanged from its factory setting. Turn the other two screws as needed to increase or decrease the brightness and length of the flame: turning counterclockwise will increase the flame; turning clockwise will decrease the flame.

1. To adjust the rear burner, open the right wing door, reach through the side access port, and turn the rear screw to adjust flame (see directions above).

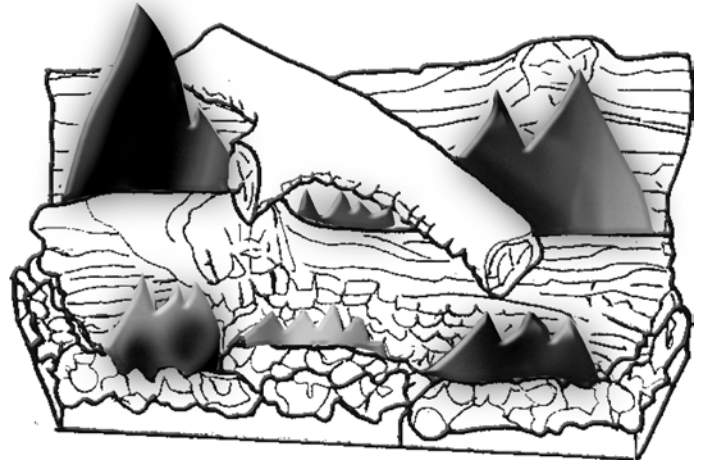
2. To adjust the front burner, first open the control door, then turn the front screw to adjust flame (see directions above).

Repeat procedure as needed until desired flame effect is achieved.

MONITORING THE GAS FLAME

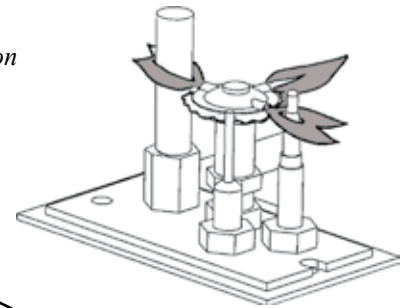
Periodically, the flames of the Clarity B-Vent Gas Heater should be checked while it is operation. The flames should be relatively well-defined and stable. They should be bright yellow with a blue base where attached to the burner ports. The flames should not look orange or sooty. Portions of the logs will glow red when the flames are properly adjusted.

If you find the flames to be other than that described here, do not operate the heater. Consult a qualified service person or your Harman dealer for advice.

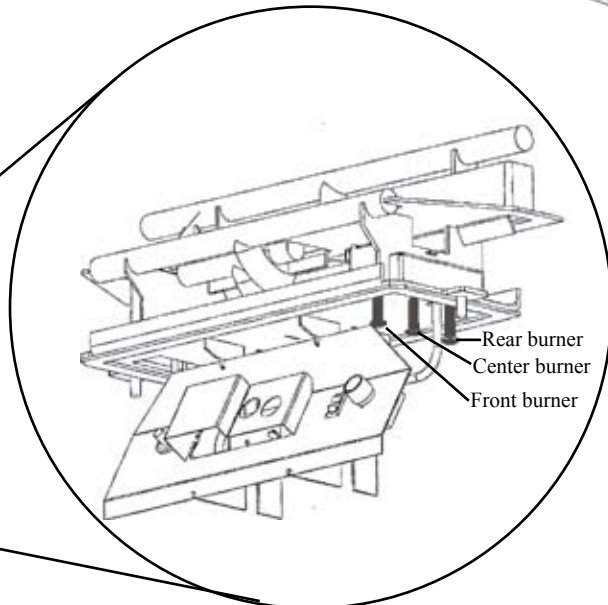
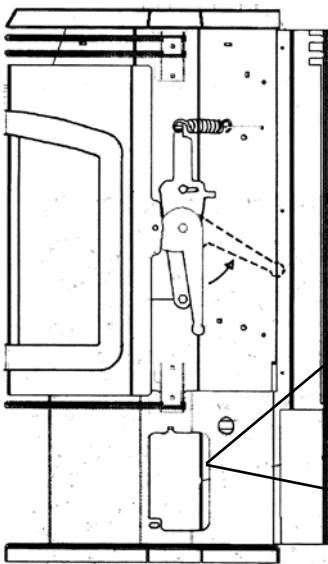


The Clarity flame pattern will resemble this when the unit is burning properly.

The properly-burning pilot will resemble the illustration to the right.



Air adjustment screws



Rear burner
Center burner
Front burner

Operation

HOW TO LIGHT THE FIRE

1. STOP! Read the safety information on the left side of the panel below.

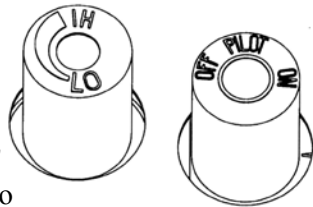
2. If using the optional thermostat, set thermostat to the lowest setting.

3. Turn off electric power to the appliance.

4. Turn the ON-OFF/THERMOSTAT switch to the OFF position.

5. Push in the gas control knob slightly and turn it clockwise to "OFF."

NOTE: The knob cannot be turned from "PILOT" to "OFF" unless it is pushed in slightly. Do not force it.



6. Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information on the label below. If you don't smell gas, go to the next step.

7. Set the High-Low Regulator to High by turning it fully counterclockwise.

8. Press in the gas control knob slightly and turn counterclockwise to "PILOT."

9. Find the pilot by looking through the round opening on the left end of the center log.

10. Push the control knob fully down and hold. Immediately push the red piezo ignitor button to light the pilot. It is normal to have to push the red button several times before the pilot ignites. Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release the knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 9.

•If the knob does not pop up when released, stop and immediately call your service technician or gas supplier.

•If the pilot will not stay lit after several tries, turn the gas control knob to "OFF" and call your service technician or gas supplier.

11. Turn the gas control knob counterclockwise to "ON."

12. Place the ON-OFF/THERMOSTAT switch in the ON position or in the THERMOSTAT position if the optional thermostat is used.

13. Turn on the electric power to the heater.

14. Set the optional thermostat to the desired room temperature.

15. Set the High-Low Regulator to desired setting: turn fully counterclockwise for High and fully clockwise for Low.

NOTE: An odor resulting from the initial heating of new materials in your heater is not unusual during the first fire, and in most cases will disappear after an hour or two.

HOW TO TURN OFF THE FIRE

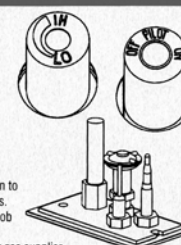
1. If using optional thermostat, set thermostat to the lowest position.

2. Turn off the electric power to the appliance.

3. Turn the ON-OFF/THERMOSTAT switch to the OFF position.

4. Push in the gas control knob slightly and turn it clockwise to "OFF."

NOTE: The knob cannot be turned from "PILOT" to "OFF" unless it is pushed in slightly. Do not force it.

FOR YOUR SAFETY READ BEFORE OPERATING	LIGHTING INSTRUCTIONS	TO TURN OFF GAS TO APPLIANCE
<p>WARNING: If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury, or loss of life.</p> <p>A. This appliance has a pilot. When lighting the pilot, follow these instructions exactly.</p> <p>B. BEFORE OPERATING smell all around the appliance area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.</p> <p>WHAT TO DO IF YOU SMELL GAS</p> <ul style="list-style-type: none">•Do not try to light any gas appliance.•Do not touch any electric switch; do not use any phone in your building.•Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions. <p>C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, don't try to repair it. Call a qualified service technician. Force or attempted repair may result in a fire or explosion.</p> <p>D. Do not use this appliance if any part has been under water. Immediately call a qualified service technician to inspect the appliance and to replace any part of the control system and any gas control that has been under water.</p>	<p>1. STOP! Read the safety information on the panel above.</p> <p>2. If using optional thermostat, set thermostat to lowest setting.</p> <p>3. Turn off electric power to the appliance.</p> <p>4. Turn ON-OFF/THERMOSTAT switch to OFF position.</p> <p>5. Push in gas control knob slightly and turn clockwise to "OFF." NOTE: Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.</p> <p>6. Wait five (5) minutes to clear out any gas. If you then smell gas, STOP! Follow "B" in the safety information above on this label. If you don't smell gas, go to the next step.</p> <p>7. Set High-Low Regulator to HIGH by turning fully counterclockwise.</p> <p>8. Press in the gas control knob slightly and turn it counterclockwise to "PILOT."</p> <p>9. Find the pilot by looking through the round opening in the left end of the center log.</p> <p>10. Push the control knob fully down and hold. Immediately push the red piezo ignitor button to light the pilot. It is normal to have to push the red button several times before the pilot ignites. Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 9.</p> <p>11. Turn gas control knob counterclockwise to "ON."</p> <p>12. Place the ON-OFF/THERMOSTAT switch in ON position or in the THERMOSTAT position if the optional thermostat is used.</p> <p>13. Turn on electric power to appliance.</p> <p>14. Set the optional thermostat to desired room temperature.</p> <p>15. Set the High-Low Regulator to desired setting; turn fully counterclockwise for High and fully clockwise for Low.</p> 	<p>1. If using optional thermostat, set thermostat to the lowest position.</p> <p>2. Turn off electric power to the appliance.</p> <p>3. Turn ON-OFF/THERMOSTAT switch to OFF position.</p> <p>4. Push in gas control knob slightly and turn clockwise to "OFF."</p> <p>NOTE: Knob cannot be turned from "PILOT" to "OFF" unless knob is pushed in slightly. Do not force.</p> <p>CAUTION: HOT WHILE IN OPERATION. DO NOT TOUCH. KEEP CHILDREN, CLOTHING, FURNITURE, GASOLINE, OR LIQUIDS WITH FLAMMABLE VAPORS AWAY.</p> <p>ATTENTION: CHAUD PENDANT LE FONCTIONNEMENT, NE TOUCHEZ PAS. TENIR ÉLOIGNÉS LES ENFANTS, LE VÊTEMENTS ET LES MEUBLES.</p> <p>Refer to label on rear of appliance for venting information. Keep burner and control compartment clean. Refer to owner's manual accompanying this appliance. Maintenir propres le brûleur et le compartiment de commande. Voir les instructions relatives à l'installation et au fonctionnement qui accompagnent le radiateur.</p> <p>Manufactured by Harman Stove Company, 352 Mountain House Road, Halifax, PA 17032, 717-362-9080. DO NOT REMOVE OR COVER THIS LABEL</p>

Maintenance

A qualified service person recommended by your Harman dealer should conduct an annual inspection and maintenance of your Clarity, its venting, and the installation to keep it running safely and efficiently. These procedures should be performed only by a qualified service person. The gas supply should be turned off whenever a maintenance procedure is performed.

If the front panel, side doors, or front access door are removed for servicing, they must be replaced prior to operating the Clarity.

REMOVING THE GLASS FRONT FOR REPLACEMENT

Refer to page 6 for directions on removing the glass front. Use only authorized Harman replacement glass components available from your dealer.

REPLACING THE GASKET

The Clarity has 5/8" diameter fiberglass gasket in the front door. Should it ever need replacement, use only the proper replacement gasket that is available from your Harman dealer. To replace the gasket, follow this procedure.

1. Open the door
2. Remove the existing gasket and clean its channel with a scraper or wire brush.
3. Lay a thin bead of high temperature silicone the entire length of the channel.
4. Lay the gasket in the channel with sufficient pressure that it stays in place.
5. Trim the excess from the end of the gasket so that it butts snugly against the other end without leaving a gap. Seal the end joint with high temperature silicone.
6. Close the door and apply firm pressure to seat the gasket evenly throughout.

CLEANING THE GLASS

The glass may be cleaned with ordinary household glass cleaner and a soft cloth or paper towel.

WARNING: Never clean the glass when it is hot. Do not use abrasive cleaners on the glass.

INSPECTING THE VENTING

An inspection of the venting system should be made during the annual service appointment. The system must have no blockage and must be in good repair. The vent manufacturer's instructions may provide specific suggestions or details on vent inspection. Any sections that are taken apart for the inspection must be reassembled and sealed as required.

CLEANING THE LOG SET AND FIREBOX

During the annual inspection and maintenance appointment, the service person should clean dust, lint, and any light accumulation from the logs and the firebox area. An extra-soft brush should be used on the logs as they are extremely fragile; a vacuum cleaner may be used on the firebox. If at any time the logs cannot be removed or installed without forcing, the cause must be found. The logs must never be forced.

Removing the Front

See directions on page 6.

Removal and Re-installation of the Log Set for Cleaning

CAUTION: The ceramic logs are durable when handled and installed properly. However, they are delicate and may be damaged easily if not handled with care. Handling damage to the ceramic logs is not covered by warranty.

DO NOT HANDLE LOGS WHILE THEY ARE HOT. ALLOW PLENTY OF TIME FOR THE STOVE TO COOL COMPLETELY BEFORE HANDLING.

Remove the Branch

Detach the branch from the two locator pins and remove it. Brush it gently and carefully place it to one side.

Remove the Center Log

Lift the center log and remove it. Brush it gently and carefully place it to one side with the branch.

Remove the Ember Strips

Carefully remove the ember strips, clean them, and place them with the other logs.

Remove the Side Brick Panels

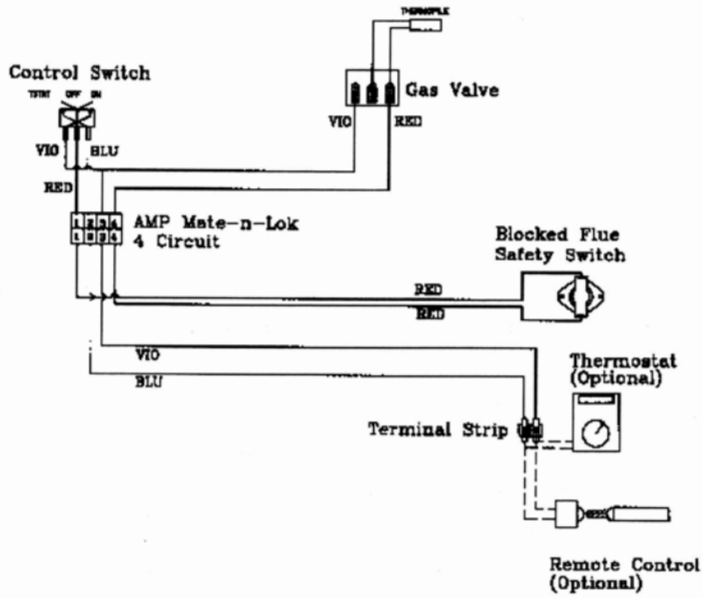
Carefully remove first one side panel, and then the other. Clean and place to side.

Remove the Back Log and Back Brick Panel

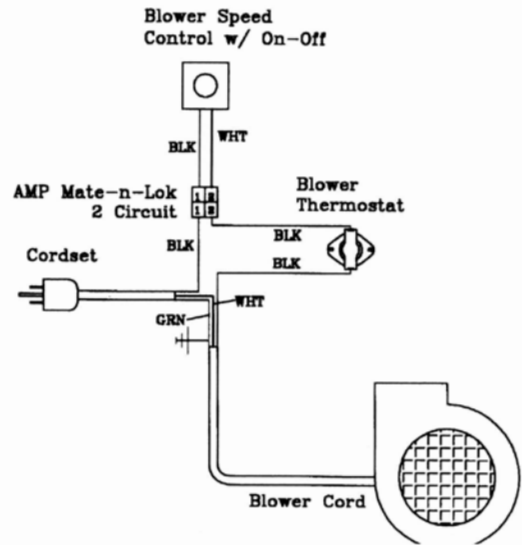
Finally, carefully remove these two components as a single piece. Brush them gently and place them to the side.

Finish the procedure by vacuuming the interior of the firebox, then re-install the logs and secure the glass front following the procedures on page 7.

Low Voltage (MVDC) Wiring



115 VAC Wiring



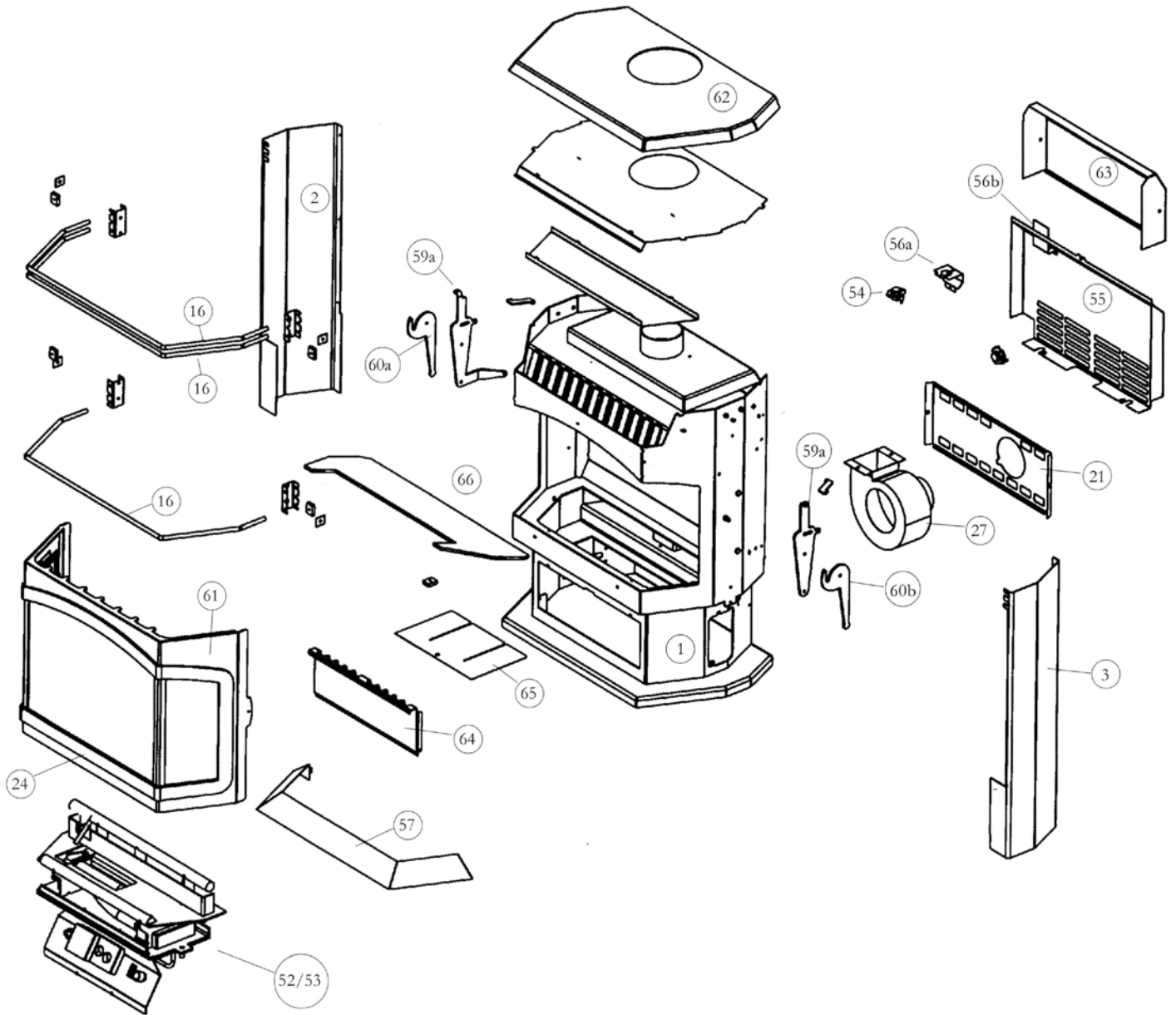
The Clarity B-Vent gas heater, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the current edition of the National Electrical Code, ANSI/NFPA 70 in the United States or the current Canadian Electrical Code CSA 22.1 in Canada.

Parts List

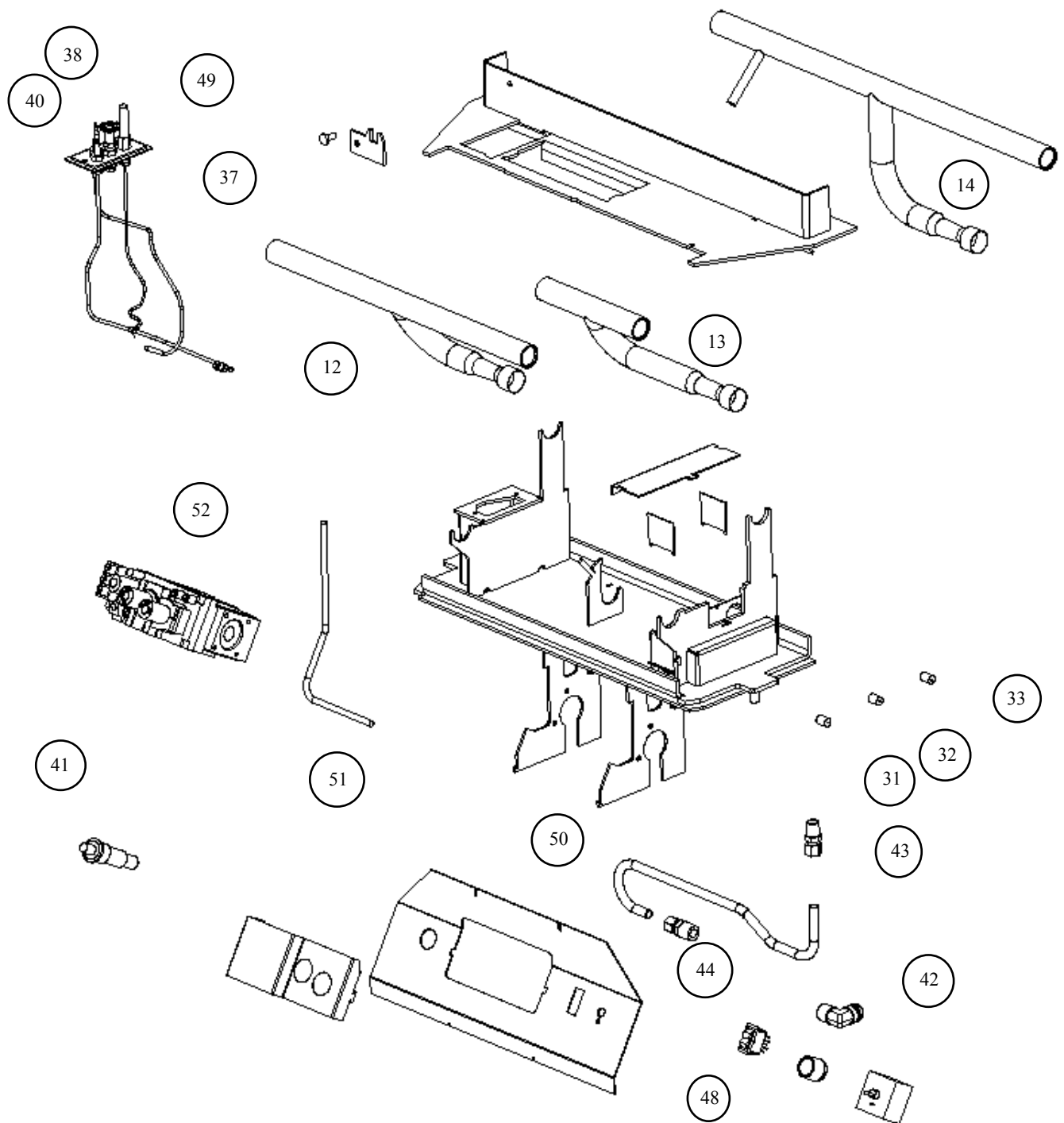
The following replacement parts for your Harman Clarity B-Vent are available from your Harman dealer.

ID#	Part No.	Part			
			39	3-40-08230	Pilot, LP
1	1-89-08270	BVG weldment	40	3-40-08228	Thermocouple
2	1-10-08262-1	Left wing door	41	3-40-08220	Piezo ignitor
3	1-10-08262-2	Right wing door	42	3-31-08282	90° brass elbow
4	3-40-08286	1/2" gas inlet flex	43	3-31-08283	1/4" tp 3/8" male compression fitting
5	3-40-08235	Rear log	44	3-31-08284	3/8" tp 3/8" male compression fitting
6	3-40-08236	Front log	45	3-30-310056082	BHSCS 5mm X 8mm for valve
7	3-40-08237	Top log	46	3-20-326006	18" valve harness
8	3-40-08401	Ember strip	47	3-20-326005	Harness w/VSC
9	3-40-08232	Left brick panel	48	3-20-08221	On-Off rocker switch
10	3-40-08233	Right brick panel	49	3-20-08219	Thermopile
11	3-40-08234	Rear brick panel	50	2-00-08281	3/8" tubing
12	3-40-08224	Front burner tube	51	0-46-250	1/4" tubing
13	3-40-08225	Center burner tube	52	1-00-08513	Valve change-over assembly, NG
14	3-40-08226	Rear burner tube	53	1-00-08314	Valve change-over assembly, LP
15	3-31-965487	Ext. spring	54	3-20-408411	Snap disc safety switch
16	3-40-00141	Formed wire gold trim	55	2-00-42208	Rear cover
17	3-31-08225	Magnet	56a	2-00-42220	Snap disc safety switch bracket
18	3-20-408412	Snap disc fan control	56b	2-00-42219	Snap disc safety switch heat shield
19	2-00-4213	Snap disc fan control bracket	57	2-00-4169	Base trim
20	3-20-326004	Power cord	58	1-10-08265-1	Latch arm, left
21	2-00-4177	Lower rear access cover	59a	1-10-08265-2	Latch arm, right
22	3-42-2312	Glass gasket	60a	2-00-4138-1	Latch cam, left
23	3-44-1086405	5/8" tight knit rope for door	60b	2-00-4138-2	Latch cam, right
24	3-43-4103	Gold plated door frame	61	1-10-08287	Front door assembly
25	3-40-120	13-3/4" X 19" glass	62	1-10-08258	Top
26	3-40-121	5-3/4" X 13-3/4" glass	63	2-00-42217	Draft hood heat shield
27	1-10-08285	Distribution blower w/ends	64	2-00-4162	Control door
28	3-44-08278	Pilot tower gasket	65	2-00-4210	Control heat shield
29	3-40-820628	NG valve	66	2-00-4172	Baffle
30	3-40-82057	LP valve			
31	3-40-57356	#56 orifice, LP front/NG center			
32	3-40-64347	#47 orifice, NG front			
33	3-40-64739	#39 orifice, NG rear			
34	3-40-57271	#71 orifice, LP center			
35	3-40-57753	#53 orifice, LP rear			
36	3-40-57753	#53 orifice, LP rear			
37	3-40-08231	Piezo cable			
38	3-40-08229	Pilot, NG			

Clarity B-Vent - Exploded View



Clarity Burner Module - Exploded View



Appendix A

CONVERTING THE CLARITY B-VENT FROM ONE GAS TO ANOTHER IN THE FIELD

NOTE: THE CONVERSION SHALL BE CARRIED OUT IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROVINCIAL OR LOCAL AUTHORITIES HAVING JURISDICTION AND IN ACCORDANCE WITH REQUIREMENTS OF THE CURRENT EDITION OF THE NATIONAL FUEL GAS CODE, ANSI Z223.1 or the CAN/CGA-B149 INSTALLATION CODES.

CONVERSION KIT COMPONENTS



- *1 Pilot Orifice
- *2 Burner Orifices
- * Regulator Assembly
- * Conversion Instructions
- * Installer Fuel Label
- * Conversion Label-*Must be attached to valve upon completion.*

Steps For Completing The Fuel Conversion.

Prior to installing the fuel conversion, remove the Glass door and the log set, to gain access to the burner module. Remove the burner tubes by sliding to the left while lifting upward. Remove the burner cover plate and the tube box top.

Step 1: Remove pilot hood with a 7/16" wrench. Inside, you will find and discard the Propane orifice. Install the new Natural Gas orifice from the kit. Tighten the pilot hood and assure proper alignment of the directional openings.

Step 2: Using a 1/2 in. deep-well socket, remove the three main burner orifices. Install the new orifices accordingly; Front = #47, Middle = #56, Rear = #39. Notice the #56 that you removed from the front will be used in the middle for Natural Gas. Apply a thread sealer to the orifices prior to installing.

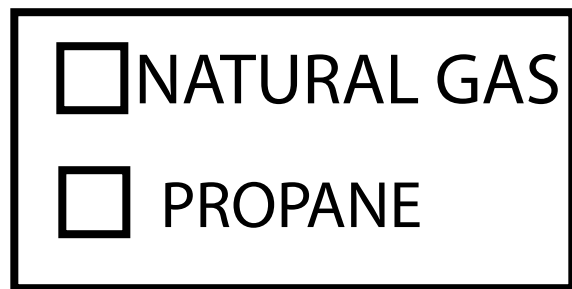
Step 3: Using a small flat-blade screwdriver, remove the three screws that hold the LP knob module in place. Remove the module and replace it with the Natural Gas module from the kit. See kit instructions.

Step 4: Affix the conversion label to the valve so that any future service tech etc... can plainly see that the valve was converted.

Step 5: Mark the appropriate fuel box on the unit label using a permanent marker.

Step 6: Affix the Installer Fuel Label in place of the existing one.

Important: Perform a leak test upon completion of the fuel conversion.



HARMAN CLARITY DIRECT VENT & B VENT			
This Appliance is equipped for <u>NATURAL GAS</u> fuel.			
Cet appareil a été converti au <u>GAZ NATUREL</u> .			
Injectors/Injecteur:	Front	Center	Rear
	DMS 47	DMS 56	DMS 39
Input/Debit calorifique:	40,000		
Manifold Pressure / Pression a la tubulure d'alimentation:	3.5		
Inlet Pressure / Pression D'arrivée:	Min.	5.0	
	Max.	7.0	
Date module installed:	_____		
By:	_____		

HARMAN CLARITY DIRECT VENT & B VENT			
This Appliance is equipped for <u>PROPANE</u> fuel.			
Cet appareil a été converti au <u>PROPANE</u> .			
Injectors/Injecteur:	Front	Center	Rear
	DMS 56	DMS 71	DMS 53
Input/Debit calorifique:	40,000		
Manifold Pressure / Pression a la tubulure d'alimentation:	10.0		
Inlet Pressure / Pression D'arrivée:	Min.	11.0	
	Max.	13.0	
Date module installed:	_____		
By:	_____		

CAUTION: LABEL ALL WIRES PRIOR TO DISCONNECTION WHEN SERVICING CONTROLS. WIRING ERRORS CAN CAUSE IMPROPER AND DANGEROUS OPERATION. VERIFY PROPER OPERATION AFTER SERVICING.

SEE WIRING DIAGRAM ON PAGE 13.

Appendix B

DE-RATING FOR HIGH ALTITUDE

For U.S. installations, the Clarity B-Vent is approved for elevations up to 2000 feet using the factory-installed burner injectors. At elevations above 2000 feet, U.S. codes require a decrease in the input rating by changing the burner injectors to a smaller size. The chart below lists by part numbers the appropriate injectors for both LP and natural gas at various altitudes.

For Canadian installations, the Clarity B-Vent is approved for elevations up to 610 meters (2000 feet). For installations from 610-1370 meters (2000-4500 ft.) the orifice sizes (DMS) for natural and propane gas are as shown in the chart below.

NATURAL GAS

Altitude	Front Injector	Harman Part No.	Center Injector	Harman Part No.	Rear Injector	Harman Part No.	Nominal Btu Input Rate
0-2000'	47	3-40-64347	56	3-40-57356	39	3-40-64739	40,000
2000-3000'	48	MALE	56	3-40-57356	40	MALE	38,400
3000-4000'	49	MALE	56	3-40-57356	41	MALE	36,900
4000-5000'	49	MALE	57	MALE	42	MALE	35,400
5000-6000'	50	MALE	57	MALE	42	MALE	34,000
6000-7000'	50	MALE	57	MALE	43	MALE	32,600
7000-8000'	51	MALE	58	MALE	43	MALE	31,300
8000-9000'	51	MALE	58	MALE	44	MALE	30,100

PROPANE

Altitude	Front Injector	Harman Part No.	Center Injector	Harman Part No.	Rear Injector	Harman Part No.	Nominal Btu Input Rate
0-2000'	56	3-40-57356	71	3-40-57271	53	3-40-57753	40,000
2000-3000'	56	3-40-57356	71	3-40-57271	54	MALE	36,900
3000-4000'	56	3-40-57356	71	3-40-57271	54	MALE	36,900
4000-5000'	57	MALE	71	3-40-57271	54	MALE	35,400
5000-6000'	57	MALE	71	3-40-57271	55	MALE	32,600
6000-7000'	57	MALE	71	3-40-57271	55	MALE	32,600
7000-8000'	58	MALE	71	3-40-57271	56	3-40-57356	30,100
8000-9000'	58	MALE	71	3-40-57271	56	3-40-57356	30,100

●When ordering injectors that have no Harman Part number, specify MALE or FEMALE and the appropriate 2- digit number.

THE CONVERSION SHALL BE CARRIED OUT BY A MANUFACTURER'S AUTHORIZED REPRESENTATIVE IN ACCORDANCE WITH THE REQUIREMENTS OF THE MANUFACTURER, PROVINCIAL OR TERRITORIAL AUTHORITIES HAVING JURISDICTION AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT EDITION OF CAN/CGA-B141.1 OR CAN/CGA-B141.2 INSTALLATION CODES.

This appliance has been converted for use at an altitude of _____ ft.		
Orifice Sizes: Front _____	Center _____	Rear _____
Input (Btu/hr)	_____	
Manifold Pressure	_____	
Fuel Type	_____	
Converted By	_____	
Date of Conversion	_____	

Clarity B Vent Gas Heater Specifications

Tested to ANSI Z21.88-2002, CSA 2.33-M02, CAN/CGA 2.17-M91.

	NATURAL GAS	PROPANE
Input Rating (Btu/hr) (0-1375 m)	40,000	40,000
Min. Input Rating (Btu/hr) (0-1375 m)	27,000	28,000
Injector Sizes (DMS) (front/center/rear (0-1375 m)	47/56/39	56/71/53
Manifold Pressure (in w.c./kPa)	3.5/0.87	10.0/2.49
Minimum Manifold Pressure (in w.c./kPa)	1.7/0.42	5.9/1.47
Minimum Inlet Pressure (in w.c./kPa)	5.0/1.25	11.0/2.74
Maximum Output (Btu/hr) (0-1375 m)	30,500	30,800
AFUE (seasonal efficiency; minimum venting)	65.2%	66.0%
Steady State Efficiency (max. input, blower on High)	78.2%	79.7%

MINIMUM CLEARANCES FROM COMBUSTIBLE CONSTRUCTION

Unit to left sidewall	9 in. (230 mm)
Unit to right sidewall	9 in. (230 mm)
Unit corner to walls	4 in. (100 mm)
Rear of unit to back wall (measured from rear of draft hood heat shield)	3 in. (75 mm)
Unit to alcove ceiling	18 in. (460 mm)
Maximum alcove depth	14 in. (355 mm)

Electrical Rating: 120 Volts, 60 Hz., Less than 1 Amp

Stove Weight: 234 lbs.

HARMAN GOLD WARRANTY
6 YEAR TRANSFERABLE LIMITED
WARRANTY (Residential)
1 YEAR LIMITED WARRANTY (Commercial)



Harman Stove Company warrants its products to be free from defects in material or workmanship, in normal use and service, for a period of 6 years from the date of sales invoice and for mechanical and electrical failures, in normal use and service, for a period of 3 years from the date of sales invoice.

If defective in material or workmanship, during the warranty period, Harman Stove Company will, at its option, repair or replace the product as described below.

The warranty above constitutes the entire warranty with respect to Harman Stove Company products. HARMAN STOVE COMPANY MAKES NO OTHER WARRANTY, EXPRESSED OR IMPLIED, INCLUDING "ANY" WARRANTY OF MERCHANTABILITY, OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. No employee, agent, dealer, or other person is authorized to give any warranty on behalf of Harman Stove Company. This warranty does not apply if the product has been altered in any way after leaving the factory. Harman Stove Company and its agents assume no liability for "resultant damages of any kind" arising from the use of its products. In addition, the manufacturer and its warranty administrator shall be held free and harmless from liability from damage to property related to the operation, proper or improper, of the equipment.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

THESE WARRANTIES APPLY only if the device is installed and operated as recommended in the user's manual.

THESE WARRANTIES WILL NOT APPLY if abuse, accident, improper installation, negligence, or use beyond rated capacity causes damage.

HOW TO MAKE A CLAIM - Any claim under this warranty should be made to the dealer from whom this appliance was purchased. Then contact is made with manufacturer, giving the model and serial numbers, the date of purchase, your dealer's name and address, plus a simple explanation of the nature of the defect. Extra costs such as mileage and overtime are not covered. Nuisance calls are not covered by these warranties.

THIS WARRANTY IS LIMITED TO DEFECTIVE PARTS - REPAIR AND/OR REPLACEMENT AT HARMAN STOVE COMPANY'S OPTION AND EXCLUDES ANY INCIDENTAL AND CONSEQUENTIAL DAMAGES CONNECTED THEREWITH.

WARRANTY EXCLUSIONS: Failure due, but not limited to, fire, lightning, acts of God, power failures and/or surges, rust, corrosion and venting problems are not covered. Damage and/or repairs including but not limited to; remote controls, filters, fuses, knobs, glass, ceramic brick panels, ceramic fiber afterburners, door packing, tile, ceramic log sets, paint, batteries or battery back-up and related duct work are not covered. Also excluded from this warranty are consumable or normal wear items including but not limited to; flame guides, grates, coal bars, afterburner hoods, fire brick, gaskets. Additional exclusions for corn stoves are burnpot housing weldment, burnpot grate weldment (pellet or corn), burnpot front plate (pellet or corn), burnpot front plate lock, corn auger extension, ceramic insert, and ceramic insert plate. Additional or unusual utility bills incurred due to any malfunction or defect in equipment and the labor cost of gaining access to or removal of a unit that requires special tools or equipment are not covered. Maintenance needed to keep the stove in "good operating condition" is not covered. This includes, but is not limited to, cleaning, adjustment of customer controls and customer education. Labor, materials, expenses and/or equipment needed to comply with law and/or regulations set forth by any governmental agencies are not covered.

This Warranty provides specific legal rights and the consumer may have other rights that vary from state to state.

In the event of change in ownership, the remaining portion of this warranty may be transferred to the new owner by sending the new owner information and a transfer fee of \$25.00 US to the Harman Stove Company.

PLEASE READ THE LITERATURE BY THE MANUFACTURER FOR THE VARIOUS ACCESSORY DEVICES. THE MANUFACTURER WARRANTS THESE ACCESSORY DEVICES, NOT HARMAN STOVE COMPANY OR THEIR WARRANTY ADMINISTRATOR. FURTHERMORE, THESE ACCESSORY DEVICES MUST BE INSTALLED AND USED ACCORDING TO THE RECOMMENDATIONS OF THE MANUFACTURER.

REMEDIES - The remedies set forth herein are exclusive and the liability of seller with respect to any contract or sale or anything done in connection therewith, whether in Contract, in tort, under any warranty, or otherwise, shall not, except as herein expressly provided, exceed the price of the equipment or part of which such liability is based.

CLARIFY - The above represents the complete warranty, which is given in connection with stoves, manufactured by Harman Stove Company. No other commitments, verbal or otherwise, shall apply except by a written addendum to this warranty.